

UNCLASSIFIED

Defense Acquisition Challenge (DAC) Program



***Comparative Testing
Office***

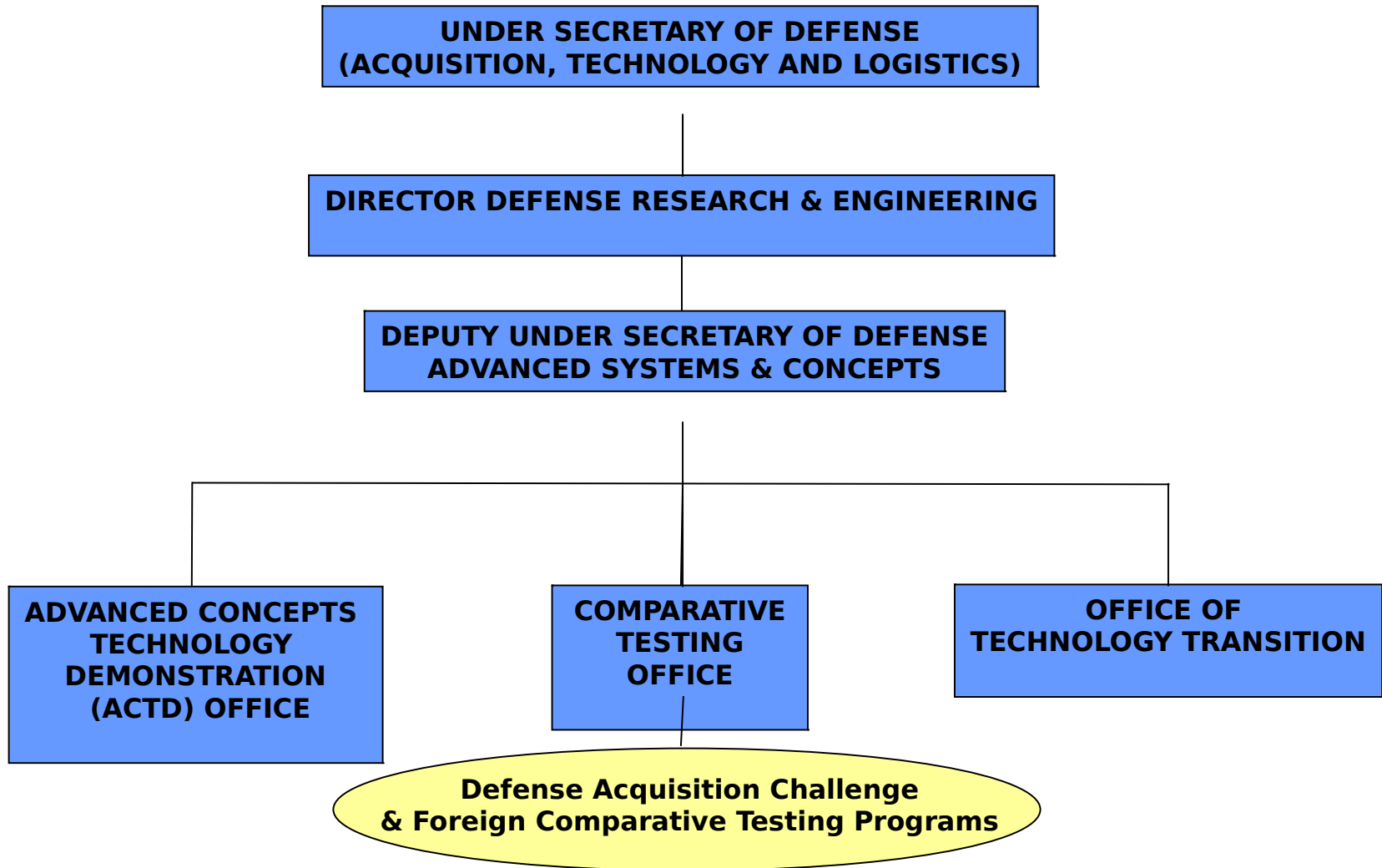
***Advanced Systems
& Concepts***

***Acquisition. Technology,
& Logistics***

Overview

- Authorized by Title 10, USC, Sec 2359b, the Defense Acquisition Challenge (DAC) Program provides *increased opportunities* for the introduction of *innovative and cost-saving technologies* into DoD acquisition programs. Provides an “on-ramp” to DoD acquisition system for small and medium vendors.
- DAC provides oversight and funds for the Test and Evaluation of technologies that have potential to improve current acquisition programs at component, subsystem, or system level
- DAC uses an established network of Service and U.S. Special Operations Command (USSOCOM) liaison offices

Organization in OSD



Evaluation Criteria

- Conduct an initial “panel” review of each proposal for:
 - Merit
 - Improvements in performance; affordability; manufacturability; operational capability at the component, subsystem or system level of an acquisition program
 - Rapid implementation at acceptable cost and without unacceptable disruption
- If the above criteria are satisfied, then a “full” review is completed by the program office and the prime system contractor
 - Independent review using the above criteria
 - Include assessment of the cost of adopting and implementing
 - Consideration of intellectual property rights

DAC provides companies an “on-ramp” into the defense acquisition system.

Selected On-Going DAC Projects

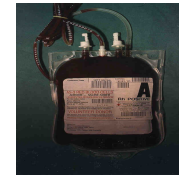
RESUS – Restore Effective Survival in Shock
Increases Survivability Rate of Soldiers during hemorrhagic shock; 3-yr shelf stable, no refrigeration required, compatible w/ all blood types

Air Force/Navy, BIOPURE, MA

Hemopure

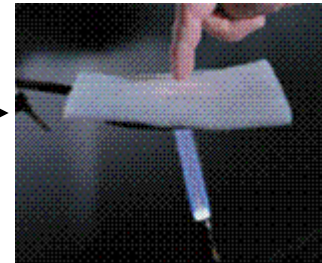


Packed red blood cells



Aerogel for Ships

Fire barrier, IR Suppression, Blast Mitigation, and Weight, Volume, Install Cost and Fuel Savings
Navy, Aspen Aerogels, MA



Friction Stir Processing

75% Reduction in propeller casting time for Virginia Class SUBS
Navy, MTS Corp, MN and General Tool Co, OH



X-Cor Replacement for Conventional Honeycomb

X-Cor™ is a lightweight, damage-tolerant core material that replaces conventional metal or honeycomb in aerospace structures. A 29% weight reduction and a 45-60% cost savings versus the baseline aluminum Blackhawk tail cone are estimated. Aztex, Inc., Waltham, MA



FY 05 DACP Process

- **FY 2005 DAC Program Status**

- 582 Initial summary proposals submitted by Industry and Government agencies with proposed technologies and products ranging from studied to near off the shelf capabilities
- Approximately 135 proposals rejected due to admin errors
- 447 Summary Proposals were evaluated and prioritized based on potential
- 141 Summary Proposals were matched to acquisition Programs of Record
- 99 Summary Proposals were evaluated by Program of Record
- 95 Proposals were “Adopted” by Program Managers into “Final Proposals”
- 95 Final proposals were submitted by Programs of record to compete for funding
- 15 FY05 New Start Projects initiated in December 2004

For FY05 15 new-starts along with 13 “on-going” projects were approved for a total of \$25.1M

Solicitation for FY 2006

Document Type: Special Notice

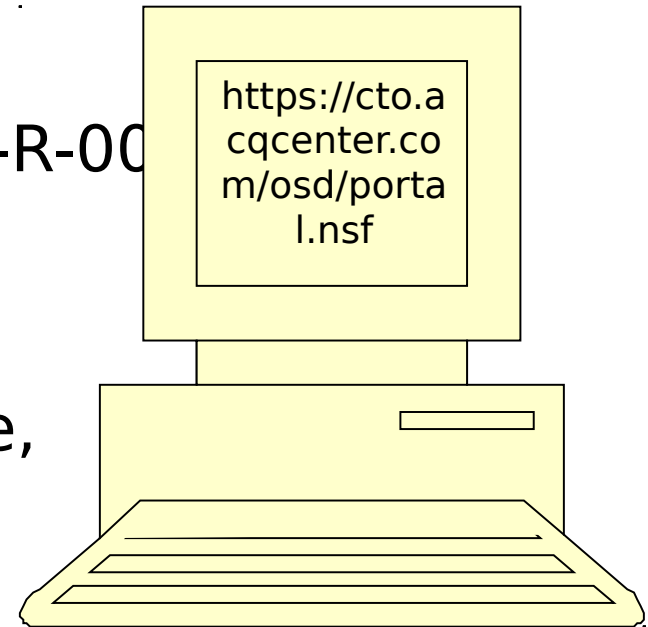
Solicitation Number: W74V8H-05-R-00

Posted Date: Jan 18, 2005

Close Date: Feb 18, 2005

Register on CTO Portal homepage,
then login, go to DACP
and follow steps 1 – 5.

Unsolicited proposals are now being accepted for
FY07



Announcement posted on web at:

www.fedbizopps.gov

<https://cto.acqcenter.com/osd/portal.nsf>

Two-Phase Process

Phase One

- Any person or activity within or outside the DoD interested in participating can submit a DACP proposal along with a quad chart using the templates provided in the BIDS website:
<http://bids.acqcenter.com/dacp> (unclassified only)
- All proposals receive:
 - ✓ Administrative Review
 - ✓ Technical Review
 - ✓ Program Manager Review
 - ✓ OSD Review
 - ✓ Selection/Non-selection
- Evaluation criteria for selection includes as a minimum
 - ✓ Does the proposal have merit?
 - ✓ Will the result achieve improvements in performance, affordability, manufacturability or operational capability?
 - ✓ Can the acquisition program be implemented rapidly and without disruption, at an acceptable cost?

Proposals meeting above criteria are prioritized based on potential for providing innovative and cost-saving technologies to meet the DoD acquisitions programs and ability to meet the warfighter needs

Two-Phase Process

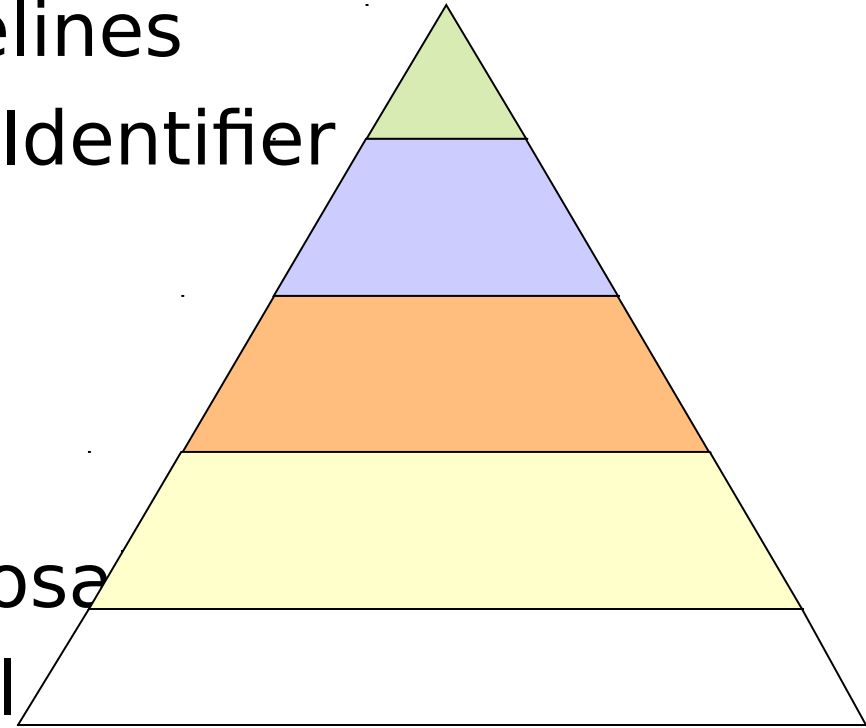
Phase Two

- Sponsoring government program offices refine the first phase proposal addressing:
 - ✓ Key performance parameters
 - ✓ Preliminary test plan
 - ✓ Cost analysis
 - ✓ Funding required for test
 - ✓ Length of evaluation period
- DACP final proposal will need letter of endorsement with intent to procure, project chart, and quad chart
- Classified proposals can be accepted through the mail

Selection for funding is highly competitive and submitters are notified of the outcome of their proposal evaluation

5 Steps for Submitting

1. Read submission guidelines
2. Generate a Document Identifier
 - Program of Record
 - List of Technology Areas
(definitions spelled out on web)
3. Submit Draft Proposal
4. Revise your Draft Proposal
5. Submit a Final Proposal



Projects that take longer than 24 months of test and evaluation will be considered case by case

Technology Readiness Levels

- TRL 9 – actual operational system “bug-free”
- TRL 8 – actual system developmental-tested
- TRL 7 – prototype tested in operational environment
- TRL 6 – prototype system/subsystem lab tested
- TRL 5 – breadboard validated in operational environment
- TRL 4 – breadboard validated in lab
- TRL 3 – proof of concept in labs
- TRL 2 – technology concept formulated
- TRL 1 – basic principles observed/reported—paper study

May be TRL 6 or 7 at time proposed, but...
must be TRL 8 or 9 by completion of DACP testing!

Extended Wear, Lubrication-Free M249 SAW



Technology

- UCT Defense wants to apply a Nickel Boron coating that is extremely hard and very lubricious to produce a lubrication-free version of the M249. This effort is to gain full safety confirmation from ATC, and conduct user evaluations by coating 136 M249s (~a Brigade).

The So What

- Extended service life, increased reliability, eliminating wet lubrication, has reduced maintenance requirements (especially in desert, fine-sand environments) and has significantly lower life cycle costs than the current M249.

Participants

- U.S. Army Picatinny Arsenal
- Universal Chemical Technology Defense, Stuart, FL

Schedule

Technical Test 2QFY05
Operational Test 2-4QFY05
Milestone C 4QFY05

Funding

<u>Funding (\$K)</u>	<u>FY05</u>	<u>total</u>
CTO	1595	1595
Sponsor	100	100

Benefits

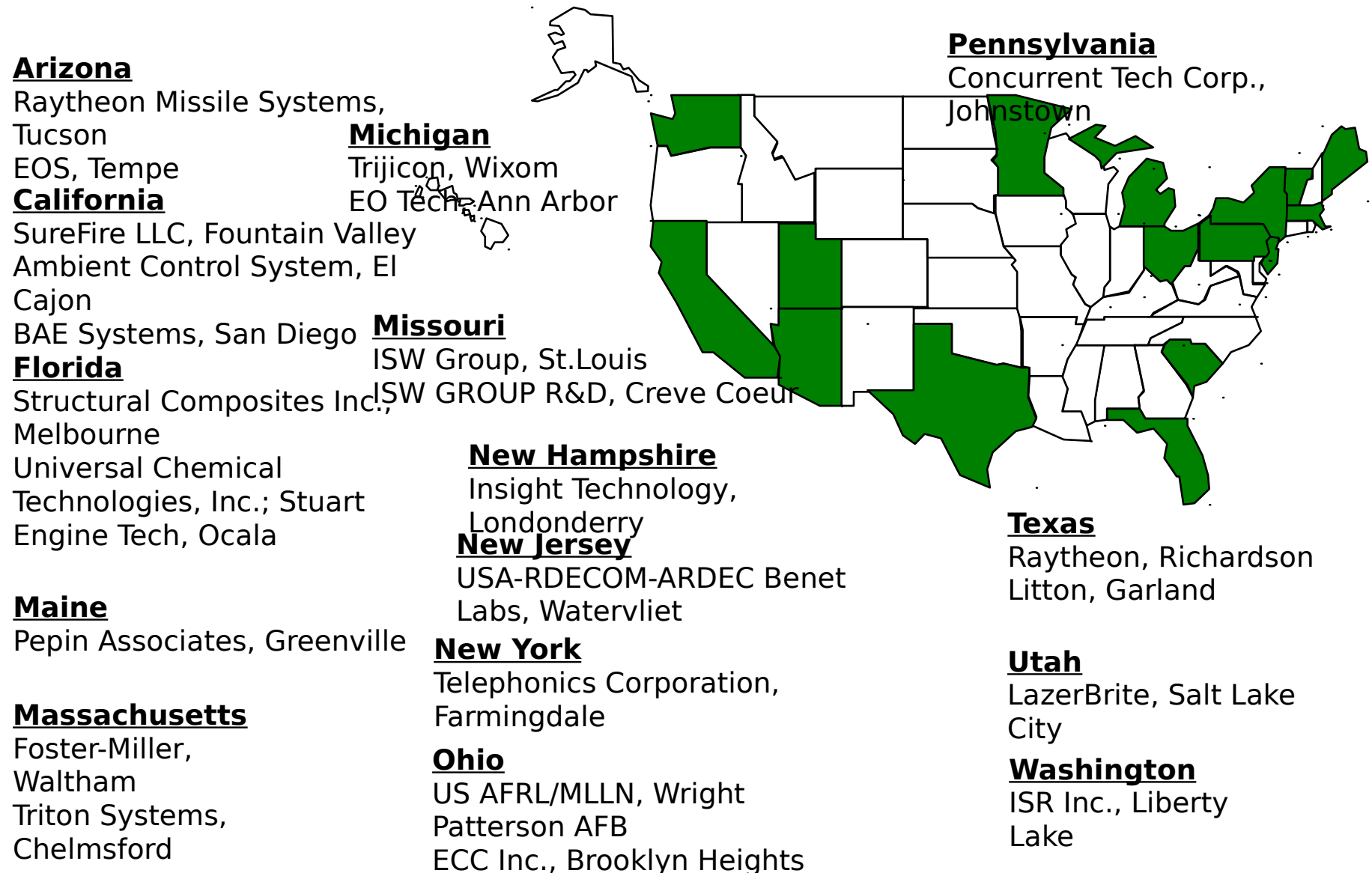
RDTE Cost Savings: \$10M
O&S Cost Savings: \$1.39M annually
Procurement Cost Savings: \$0.65M annually
Fielding Reduction: none
Procurement Potential: \$13.0M (USA+SOF)

DAC Small Business Factoids

Of the companies participating:

- 202 of the 382 FY03/04 submissions were Small or Mid-sized Business
 - 14 of the 20 projects selected for FY03 DAC – 70% were Small or Mid-sized Business
 - 7 of the 10 projects selected for FY04 DAC – 70% were Small or Mid-sized Business
- 326 of the 582 FY05 submissions were Small or Mid-sized Business
 - 11 of the 15 projects selected for FY05 DAC – 70% were Small or Mid-sized Business

FY05 Defense Acquisition Challenge Program Participating Companies



Primary DAC Points of Contact

OSD Program Office	(703) 602-3740
U.S. Army Focal Point	(703) 866-0999
U.S. Navy Focal Point	(215) 697-9528
U.S. Air Force Focal Point	(703) 588-6457
USSOCOM Focal Point	(813) 828-9426

E-Mail:

defensechallenge@osd.mil

Web:

<https://bids.acqcenter.com/dac>

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